



Enhancing access and retention in substance abuse treatment: The role of Medicaid payment acceptance and cultural competence



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ABSTRACT

Background: Health insurance coverage and quality of care are common factors believed to improve access for and retention of racial and ethnic minority groups in health care. However, there is little evidence that acceptance of public insurance and provision of culturally responsive care decrease wait time and retention of minority populations in community-based substance abuse treatment.

Methods: We analyzed client and program data collected in 2010–2011 from publicly funded treatment programs in Los Angeles County, CA. An analytical sample of 13,328 primarily African American and Latino clients nested within 104 treatment programs located in minority communities was analyzed using multilevel negative binomial regressions on count measures of days to initiate and days spent in treatment.

Results: Programs that accepted public insurance ($p < .001$) and in which staff reported personal involvement ($p < .01$) and linkages and resources with minority communities ($p < .001$) were negatively associated with client wait time. Similarly, programs with culturally responsive policies and assessment and treatment practices ($p < .05$) were positively associated with retention in treatment, after controlling for individual and program characteristics.

Conclusions: These preliminary findings provide an evidentiary base for the role of community-based financial and cultural practices in improving accessibility and treatment adherence in a population at high risk of treatment dropout. Implications related to health care reform legislation, which seeks to expand public insurance and enhance culturally competent care, are discussed.

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1. Introduction

Despite considerable research on substance abuse treatment (SAT) outcomes, there is limited understanding of the specific influence of program context on treatment access and retention of clients. Even less is known about program-level effects on specific ethnic groups. Increasing evidence has suggested that access and duration in treatment among Latinos and African Americans depend, in part, on the capacity of programs to provide financial support and high-quality care. In the United States, the Affordable Care Act (ACA) will expand insurance coverage to enhance access to health care for low-income individuals in addition to mandating cultural competence training for providers to reduce health disparities among ethnically and racially diverse populations (Andrulis et al., 2010). Consequently, this preliminary study involved examining the extent to which public insurance acceptance and organizational cultural competence are associated with

client wait time to access treatment and retention in community-based SAT.

Among those seeking help for substance abuse issues, wait time to treatment entry has been the most commonly cited barrier (Appel et al., 2004; Claus and Kindleberger, 2002; Farabee et al., 1998; Hadland et al., 2009). Treatment retention, or time spent in treatment, has been cited as an important process outcome and robust predictor of reduced posttreatment substance use (Simpson et al., 1997; Zhang et al., 2003). It has been well established that members of racial and ethnic minority groups are more likely than Whites to experience difficulty entering and remaining in SAT beyond the general threshold of 90 days necessary to derive benefits from treatment (Amaro et al., 2006; Friedmann et al., 2003; Marsh et al., 2009; Tonigan, 2003; Zhang et al., 2003). As a reflection of their importance to treatment, wait time and retention have been included among program performance measures developed by nationally recognized research groups (Garnick et al., 2009; McCarty et al., 2007), as well as county and state administrative data systems (Hyde, 2011; Rawson and McLellan, 2010). Thus, it is critical to rely on these process measures to analyze program capacity to enhance standards of care.

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As publicly funded substance abuse treatment systems in urban, low-income and ethnically diverse settings around the world face a new financial and service delivery environment that demands greater accountability, increased efficiency in service delivery, and reduced variation in care for vulnerable populations (National Council for Community Behavioral Healthcare, 2011), it is important to examine the extent to which providers' acceptance of public insurance and delivery of culturally responsive care impacts treatment access and retention. Findings from this preliminary study may inform implementation of health care policy to enhance SAT service delivery in low-income and minority communities in large urban settings.

1.1. Conceptual framework

Emerging research has suggested that public health insurance and culturally responsive care are the most significant factors to enhancing access and engagement in behavioral health services among low-income minority clients (Alegria et al., 2006; Amaro et al., 2006; Andrusis et al., 2010; Howard, 2003; Vega, 2005). Several studies have suggested that access to health care differs substantially based on insurance coverage (see Hargraves and Hadley, 2003). Although the ACA seeks to eliminate this issue by expanding coverage, poor implementation of a Medicaid payment system among SAT providers will most likely prevent newly insured, low-income minority individuals from entering and receiving adequate exposure to treatment (Andrusis et al., 2010; Terry-McElrath et al., 2011). By accepting public insurance payments, referred to as Medi-Cal in California, providers will be expected to increase revenue and abide by quality standards that include reduction of wait time to initiate treatment and adequate coverage once clients begin receiving services (Hyde, 2011; Rawson and McLellan, 2010). Thus, we posited the following hypotheses:

H1 (:). Acceptance of Medi-Cal would be negatively related to client wait time.

H2 (:). Acceptance of Medi-Cal would be positively related to client retention in treatment.

1.2. Cultural competence and treatment access and retention

The organizational cultural competence framework outlines a diverse set of organizational practices, attitudes, and services that can be adapted to enhance the cultural sensitivity and responsiveness of health care organizations (Brach and Fraser, 2000; Harper et al., 2009; Lewin Group, 2001; Prince Inniss et al., 2009; Weech-Maldonado, 2002). These studies identified several organizational domains in which culturally competent practices can be developed, including providers' knowledge of and personal involvement in racial and ethnic minority communities; development of resources and linkages to serve racial and ethnic minorities; hiring and retention of staff with racial and ethnic minority backgrounds; reaching out to racial and ethnic minority communities; and developing policies and health service practices (e.g., bilingual treatment) to effectively respond to the service needs of racial and ethnic minority clients (Brach and Fraser, 2000; Mason, 1995).

Evidence has suggested that the ability of a SAT program to respond to the linguistic, cultural, familial, and community norms of Latinos and African Americans in treatment is associated with greater service utilization (Campbell and Alexander, 2002). In particular, preliminary findings derived from nationally representative data in the United States showed a strong relationship between staff cultural sensitivity and knowledge of minority communities and shorter wait time and greater retention among Latinos and African Americans (Guerrero and Andrews, 2011). Data from California showed that Spanish language translation of treatment materials

was associated with higher odds of treatment completion among Latinos (Guerrero et al., 2012a). In the broader field of medicine, research has indicated that language barriers may contribute to longer waiting periods to receive treatment (Betancourt, 2006; Brach and Fraser, 2000). Specifically, when interpreters or bilingual providers are not readily available, clients in need of such services may wait longer to commence treatment (González et al., 2010; Office of Minority Health, 2001). Moreover, it is well known that members of racial and ethnic minority groups are more likely than Whites to experience difficulties navigating the health services system and learning about program and financial resources that may facilitate access to treatment (Institute of Medicine, 2003; National Quality Forum, 2008).

Experts in the treatment field have argued that poor treatment retention among minority clients is mainly due to limited knowledge and understanding among providers of the community context and service needs of minority groups (Alegria et al., 2006; Vega et al., 2007). Studies in behavioral health settings have suggested that culturally responsive practices, such as delivering services in a bilingual, culturally diverse, and inclusive setting, are associated with minority clients experiencing effective communication, more accurate diagnosis, a positive therapeutic alliance, and greater client satisfaction (Brach and Fraser, 2000; Cross et al., 1989; González et al., 2010; Saha et al., 1999, 2000; Sue et al., 1991; Wells et al., 2001), factors that are highly related to increased treatment retention.

Beyond relying on discrete service practices, such as matching clients and providers based on cultural and linguistic background, U.S. health care agencies and experts have supported comprehensive efforts to improve the organizational cultural competence of providers (Alegria et al., 2006; Amaro et al., 2006; Office of Minority Health, 2001; National Center for Cultural Competence, 2007; National Quality Forum, 2008; Vega, 2005). This comprehensive framework suggests that by understanding and investing in the minority communities they serve and integrating hiring, training, and service practices and policies that are most responsive to client service needs in local communities, treatment organizations will be more likely to move clients into treatment quickly and engage them in treatment for longer periods (National Center for Cultural Competence, 2007; National Quality Forum, 2008; Prince Inniss et al., 2009). Accordingly, the following exploratory hypotheses were tested:

H3 (:). Six dimensions of cultural competence (developing knowledge, connection, linkages, and resources in racial and ethnic minority communities, as well as culturally competent policies, procedures, and staffing practices) among providers would be negatively related to client wait time.

H4 (:). Six dimensions of cultural competence (developing knowledge, connection, linkages, and resources in racial and ethnic minority communities, as well as culturally competent policies, procedures, and staffing practices) among providers would be positively related to client retention in treatment.

2. Methods

2.1. Sampling frame and data collection

This study used a fully concatenated program and client data set collected in 2010–2011. The sampling frame included all 408 nonprofit substance abuse treatment programs funded by the Department of Public Health in Los Angeles County, California. The client data were drawn from the Los Angeles County Participant Reporting System (LACPRS). These system wide evaluation data, collected by each provider on an ongoing basis, capture the treatment experience and immediate outcomes of a racially and ethnically diverse client population in the largest treatment system in the United States. Of the 141 items in the LACPRS survey, more than half are standardized scales and questions related to client admission, discharge, and health derived from state (California Outcome Measure System) and federal (Treatment Episode Data Set) measurement systems. Client data used in this study

Table 1
Program variables (N = 104) and client variables (N = 13,328) in community-based substance abuse treatment, 2010–2011.

Variables	M (SD), %, or n	Response format
Program characteristics		
Cultural competence ^a		
Knowledge of communities	28.23 (6.69)	9 items, e.g., How well can you describe Latino social problems in your service area?
Personal involvement	24.08 (8.53)	3 items, e.g., How much do you interact with ethnic minority communities in your service area?
Resources and linkages	29.15 (4.94)	15 items, e.g., Do you collaborate with programs that provide mental health psychiatric services?
Staff diversity	26.99 (4.98)	12 items, e.g., Does your agency staff represent the racial/ethnic backgrounds of your clients?
Reaching out to communities	28.94 (5.32)	8 items, e.g., Does your agency reach out to residents and organizations in communities of color?
Policies and procedures	24.56 (5.80)	10 items, e.g., Does your agency use race/ethnic-specific assessment instructions for diagnosis?
Acceptance of Medi-Cal	81.91	Accepts Medi-Cal reimbursement
Acceptance of private insurance	54.62	Accepts private insurance reimbursement
License	97.09	Licensed by the state
Accreditation	32.19	Accredited by TJC
Outpatient	61.30	Provides primarily outpatient services
Methadone	4.21	Provides primarily methadone maintenance services
Residential	34.46	Provides primary residential services
Client characteristics ^b		
Treatment duration	90.97 (102.87)	Days in treatment from 7/1/2010 to 12/30/2011
Wait time to enter treatment	3.35 (13.61)	Days waiting to initiate treatment
Medi-Cal eligibility	42.88	Eligible for Medi-Cal insurance
Female	36.93	Self-identified as female
White	30.71	Self-identified as White
Black	21.17	Self-identified as Black
Latino	42.80	Self-identified as Latino
Other	5.32	Self-identified as Asian or other
History of mental health issues	24.74	Previous diagnosis of mental health issue
Homeless	16.23	Unstable housing status
Tested for HIV	51.55	Tested for HIV during lifetime
Prior treatment episodes	1.57 (3.38)	Number of previous treatment episodes
Alcohol as primary substance	24.67	Reported alcohol as primary substance of choice

TJC = The Joint Commission.

^a Items from the Cultural Competence Self-Assessment Questionnaire (Mason, 1995); measures range from 10 = not at all to 40 = often.^b Clients reported on all client characteristics.

included 15,100 client treatment episodes collected from July 1, 2010, to December 30, 2011.

Data were also collected from a random sample of 147 publicly funded and nonprofit programs from the 350 programs located in communities with a population of 40% or more Latino and/or African American residents in Los Angeles County. The clinical supervisor was the key informant for program survey measures, and additional sources of data were used to cross-validate survey measures during follow-up site visits with 91% of the sample. Consistent information from at least two of the three sources of data was necessary for inclusion of each program in the analytical sample, i.e., (1) a review of program characteristics and service delivery information reported to the funding organization (L.A. County Department of Public Health); (2) qualitative reports from one counselor per program; and (3) a review of printed material available at each provider site (e.g., brochures, group activities, posted signs).

2.2. Analytic sample

The final analytic sample consisted of 104 programs and 13,328 client treatment episodes with full and verified information. Ninety-two percent of clinical supervisors responded to the online program survey. The final analytical sample decreased from 147 to 104 programs because 12 programs did not respond to the survey, 10 programs reported inconsistent data, 10 programs did not serve county clients in 2010–2011, and 11 programs had closed prior to survey data collection. The 43 excluded programs did not differ from the analytic sample in terms of main independent variables ($p > .05$). Missing data was less than 16% across all survey measures.

2.3. Study variables

We examined two dependent variables: (1) client-reported wait time to treatment and (2) client retention in treatment. Client wait time to treatment was measured at intake as how many days each client spent on a waiting list before starting treatment (78% of clients reported no wait). The retention variable indicated the number of days between admission and discharge dates as noted by counselors. Both variables were count measures that represented estimates of number of days. As analytical measures, they have been successfully used in several analyses (Friedmann et al., 2003; Guerrero et al., 2012a, 2012b).

The independent variables of interest included program measures of insurance and cultural competence. The insurance item was a dichotomous measure of

whether the program accepted Medi-Cal payments. Control measures for insurance were acceptance of private insurance and client eligibility for Medi-Cal.

The organizational cultural competence measure relied on the Cultural Competence Self-Assessment Questionnaire (Mason, 1995). This measure is composed of six subscales with 9, 8, 3, 15, 10 and 12 items each, representing culturally competent practices. These subscales measured (1) knowledge of, (2) outreach to, and (3) personal involvement in racial and ethnic minority communities; (4) development of resources and linkages to serve racial and ethnic minorities; (5) development of policies and procedures to effectively respond to the service needs of racial and ethnic minority patients; and (6) hiring and retention of employees with racial and ethnic minority backgrounds. Sample items for each scale are presented in Table 1 (for a full description of items, please refer to <http://www.racialequitytools.org/resourcefiles/mason.pdf>). Reliabilities of the six subscales ranged from .69 to .85. Responses were rated on a 4-point Likert scale (1 = not at all to 4 = often) and averaged to create total scores for each subscale. Higher scores indicated higher levels of cultural competence in each subdomain, as perceived by supervisors.

Conceptually informed and empirically supported control variables were included at both the organizational and client level. Organizational characteristics included two program regulation measures associated with treatment outcomes in other research: (1) state license and (2) accreditation by the Joint Commission (Campbell and Alexander, 2002; D'Annunzio, 2006; Guerrero and Andrews, 2011). Consistent with other studies on retention, we controlled for treatment modality, i.e., whether the program format was primarily outpatient, short-term methadone, or residential to account for different expectations regarding retention for these different modalities (Marsh et al., 2009; McCaul et al., 2001; Perron and Bright, 2008).

At the client level, we accounted for several characteristics associated with wait time and retention in other research. Dichotomous variables included client reports on Medi-Cal eligibility, gender, race and ethnicity, mental health history, homelessness status, having been tested for HIV, and alcohol use as primary drug of choice (Evans et al., 2009; Guerrero and Andrews, 2011; Guerrero et al., 2012a; Marsh et al., 2009; Tonigan, 2003; Zhang et al., 2003). We also controlled for the number of prior treatment episodes (Guerrero et al., 2012b). See Table 1 for descriptive statistics and response format for scales and measures.

2.4. Data analysis

Stata/SE Version 12 was used to conduct all analyses. Multiple imputation was used to fill in missing values, as data were assumed to be missing at random (Rubin,

Table 2
Multilevel negative binomial regressions on client wait time and duration in treatment, 2010–2011.

Independent variables	Wait time			Retention		
	IRR	SE	CI	IRR	SE	CI
Program characteristics						
Cultural competence						
Knowledge of communities	0.951	0.036	0.882, 1.024	1.008	0.014	0.981, 1.036
Personal involvement	0.878 ^{***}	0.032	0.801, 0.951	1.004	0.009	0.987, 1.022
Linkages and resources	0.884 ^{***}	0.035	0.819, 0.955	0.999	0.009	0.981, 1.017
Staff diversity	0.995	0.040	0.920, 1.076	0.983	0.015	0.955, 1.012
Reaching out to communities	1.036	0.030	0.979, 1.097	1.008	0.012	0.985, 1.032
Policies and procedures	1.032	0.031	0.973, 1.094	1.023 [*]	0.013	1.001, 1.049
Acceptance of Medi-Cal	0.306 ^{***}	0.100	0.161, 0.582	0.802	0.118	0.602, 1.069
Acceptance of private insurance	2.000 [*]	0.781	1.012, 4.298	0.817	0.117	0.617, 1.081
Licensed	5.655 ^{**}	4.388	1.236, 25.878	1.162	0.240	0.775, 1.741
Accredited by TJC	1.666	0.611	0.812, 3.420	0.932	0.100	0.755, 1.151
Methadone ^a	0.021 ^{***}	0.022	0.003, 0.159	0.378 ^{***}	0.102	0.223, 0.640
Residential ^a	2.258 ^{**}	0.869	1.062, 4.800	0.466 [†]	0.191	0.209, 1.040
Client characteristics						
Wait time						
Medi-Cal eligibility	0.496 ^{***}	0.132	0.294, 0.835	1.002	0.002	0.997, 1.007
Female	0.870	0.093	0.705, 1.072	2.362 ^{***}	0.261	1.903, 2.933
Black ^b	0.617	0.155	0.376, 1.011	1.090 [*]	0.051	1.001, 1.195
Latino ^b	1.166	0.127	0.941, 1.444	1.308 ^{***}	0.128	1.079, 1.585
Other ^c	0.741 ^{***}	0.085	0.592, 0.927	1.395 ^{***}	0.124	1.172, 1.660
History of mental health issues	0.921	0.159	0.657, 1.290	1.255 ^{***}	0.109	1.059, 1.487
Homeless	0.921	0.159	0.657, 1.290	0.751 ^{***}	0.049	0.661, 0.853
Tested for HIV	1.017	0.123	0.802, 1.290	1.116	0.203	0.781, 1.593
Prior treatment episodes	1.385 ^{***}	0.167	1.093, 1.753	0.817 ^{***}	0.065	0.700, 0.954
Alcohol ^c	1.051 ^{**}	0.021	1.011, 1.092	0.994	0.005	0.985, 1.003
Constant	0.620 ^{***}	0.081	0.480, 0.801	0.840 [†]	0.088	0.683, 1.032
ln/Alpha	0.026 ^{***}	0.036	0.002, 0.406	1.532	0.680	0.642, 3.657
Observations (programs)	8.655 ^{***}	3.371	4.034, 18.570	1.391 ^{***}	0.085	1.233, 1.568
Observations (clients)	104			104		
	13,328			13,328		

CI = confidence interval; IRR = incidence rate ratio; SE = standard error; TJC = The Joint Commission.

^a Outpatient is reference category.

^b White is reference category.

^c Primary substance of choice.

^{*} $p < .05$.

^{**} $p < .01$.

^{***} $p < .001$.

1987). Each missing value was replaced with 20 plausible values using the Markov Chain Monte Carlo method (Schaefer, 1997). Imputation was conducted for program and client variables independently. The highest rate of missing data for any variable in the sample was approximately 16%. Two variables, accreditation by the Joint Commission and resources and linkages, had 16% missing data, whereas missing data for other variables was less than 10%. Twenty imputed data sets were developed, merged, and analyzed using Stata's MI IMPUTE and MI ESTIMATE commands.

We also relied on Stata to conduct multilevel negative binomial regression analyses using MI ESTIMATE: NBREG with a log link function (Stata Press, 2012). The CLUSTER option was used to account for the multilevel structure of the data (clients nested in programs) and to obtain more accurate estimates of standard errors (Blakely and Woodward, 2000), as suggested in other research (see Guerrero et al., 2012b; Guerrero, 2012; Marsh et al., 2009). In particular, negative binomial regression with robust standard errors were used to analyze wait time and retention measures that were overdispersed, i.e., their variance was much greater than their mean (Cameron and Trivedi, 2009). Compared to Poisson regression, which is generally used to model count data and has the same mean structure, negative binomial analysis is more efficient at modeling overdispersed outcomes using the extra parameter of exposure to an event (Cameron and Trivedi, 2009; Xiang et al., 2007). Client age was used to differentiate between exposures to the event (wait time and retention), consistent with other studies (see von Sydow et al., 2002).

The parameters presented in negative binomial regression were expressed as incidence rate ratios (IRRs). IRRs can be interpreted as the estimated rate ratio for a 1-unit increase in the independent variable, given the other variables are held constant in the model. For example, if a score for personal involvement in minority communities (range = 0–50) increased by 1 point, the ratio for number of wait days would be expected to decrease by a factor of $IRR = 0.878$, while holding all other variables in the model constant.

3. Results

Table 2 presents the results of negative binomial regression models on client wait time and retention in community-based

treatment programs. Findings supported Hypothesis 1; acceptance of Medi-Cal insurance was negatively related to client wait time ($IRR = 0.306$, $p < .001$). This relationship showed the largest effect size among all relationships examined in this study.

No support was found for Hypothesis 2. Acceptance of Medi-Cal was not positively related to client retention in treatment at a statistically significant level. It is important to mention that client eligibility for Medi-Cal was strongly associated with lower wait time ($IRR = 0.496$, $p < .001$) and longer treatment retention ($IRR = 2.362$, $p < .001$).

Findings partially supported Hypothesis 3, which posited that six dimensions of cultural competence among providers would be negatively related to client wait time. Only two dimensions of cultural competence were associated with client wait time. Staff's personal involvement in minority communities ($IRR = 0.878$, $p < .01$) and program development of linkages and resources in minority communities ($IRR = 0.884$, $p < .001$) were negatively associated with wait time before initiating treatment.

Partial support was also found for Hypothesis 4, which posited that six dimensions of cultural competence among providers would be positively related to client retention in treatment. Only programs with policies and procedures designed to effectively assess and serve minority clients were positively associated with treatment duration ($IRR = 1.023$, $p < .05$).

It is worth noting significant findings related to risk of client dropout based on race, ethnicity, mental health, HIV risk, exposure to treatment, and primary drug of choice. African American clients ($IRR = 1.308$, $p < .001$), Latinos clients ($IRR = 1.395$, $p < .001$),

and other non-White clients ($IRR = 1.255, p < .001$) reported longer retention than Whites. However, clients with a history of mental health issues reported shorter retention ($IRR = 0.751, p < .001$), whereas clients who had been tested for HIV reported longer wait time ($IRR = 1.385, p < .001$) and shorter retention in treatment ($IRR = 0.817, p < .01$) than nontested individuals. Finally, clients with more treatment episodes were associated with slightly higher wait time ($IRR = 1.051, p < .01$), whereas clients whose primary substance of choice was alcohol, rather than illegal substances, reported shorter wait time ($IRR = 0.620, p < .001$) but also shorter retention ($IRR = 0.840, p < .05$).

4. Discussion

The current study advanced the understanding of the role of acceptance of Medi-Cal insurance and engagement in culturally responsive practices among providers with regard to client wait time and retention in community-based SAT care. Findings indicated that acceptance of Medi-Cal plays a significant role in improving access to treatment, reflected by its strong negative association with wait time and large effect ($IRR = 0.306, p < .001$). Although previous researchers stressed that Medicaid's low reimbursement rates and billing-related burdens are disincentives to accepting public insurance, the shift precipitated by the ACA from block grants to individual payments as a major source of reimbursement will change this dynamic. Before the enactment of ACA policies in 2014, our findings revealed that clients eligible for Medi-Cal already experienced significantly shorter wait times to initiate treatment ($IRR = 0.496, p < .001$) and longer treatment duration ($IRR = 2.362, p < .001$) than ineligible clients in all programs. Factors associated with Medi-Cal eligibility appear more important to access and retention than acceptance of Medi-Cal by SAT programs. Based on validated client and program measures from real-life, community-based settings featuring a large population of low-income minority clients who are expected to be most affected by health care reform, these findings have significant implications for assessing the effects of the ACA's expansion of public insurance on access to and retention in care among low-income individuals, including those from minority backgrounds.

These preliminary findings also showed that culturally responsive practices, such as personal involvement in minority communities and investment in linkages and resources, may contribute to greater access to SAT. Because wait time to enter treatment among low-income and minority populations is often related to poor program coordination with referral sources and limited access strategies (Friedmann et al., 2003; Hser et al., 1998), programs that promote active involvement in community activities, invest in referral and linkage networks, and develop responsive strategies may be better positioned to provide treatment on demand.

In turn, explicit culturally responsive policies and assessment and treatment practices may contribute to longer retention in community-based care. Evidence has suggested that effective screening and assessment of minority populations can inform tailored treatment, which in turn improves client treatment retention (Broome et al., 1999). Programs with diverse staff have been associated with process outcomes in emerging studies (Guerrero and Andrews, 2011), yet in the current study, staff diversity and knowledge of and reaching out to communities were not related to wait time and retention. These discrete practices may respond differently to the cultural layers that exist for client, counselors, and the organization (Mallow, 2010), and may represent strategies that programs can rely on to reduce the seemingly intractable cultural and linguistic barriers associated with treatment access and retention.

Emerging studies have started developing an evidentiary base for specific culturally competent practices in SAT, such as the provision of materials in Spanish to improve Latino treatment completion in California's publicly funded treatment system (Guerrero et al., 2012a). As ACA legislation begins to provide incentives to increase cultural competence training while simultaneously instituting performance standards partly based on measures of access to and retention in treatment, this study highlighted the importance of cultivating personal involvement, linkages, and resources in the community to improve access and develop culturally responsive policies and assessment procedures to engage minority clients in treatment.

In contrast with other studies, these findings in L.A. County showed that racial and ethnic minorities reported greater access and retention than Whites. These data included an uncommonly high rate of minority clients served by providers located in minority communities, and the White subsample reported significant psychosocial factors such as high rates of homelessness and history of mental illness, which have been associated with dropout risk. Another puzzling finding was the shorter retention rate among methadone clients compared to outpatient clients. Although methadone treatment is generally viewed as a long-term maintenance approach, the methadone sample comprised only 4% of the total sample and was comparable to the outpatient group in that it represented clients receiving primarily short-term methadone treatment, also known as 1-year detoxification.

After accounting for indicators of insurance and quality of care, this study also highlighted poor access and retention among clients with co-occurring conditions and risk factors. Clients with a history of mental health issues remained in treatment for shorter periods, whereas those tested for HIV prior to treatment waited longer and spent less time in treatment than nontested individuals. Studies showed that SAT programs are ill-prepared to respond to the prevention and intervention needs of populations with co-occurring mental health (McGovern et al., 2007) and sexual risk conditions (Guerrero and Cederbaum, 2011; Pollack et al., 2006). However, because health care reform will fund integrative approaches to respond to these co-occurring conditions and risk factors, SAT programs are poised to develop financially and culturally responsive interventions, as well as comprehensive screening, referral, and treatment protocols for clients with physical and mental health needs.

4.1. Study limitations

Several limitations associated with study data must be acknowledged. First, all measures were derived from cross-sectional data, preventing analysis of causality or directionality. However, the large sample of programs and clients provided robust estimates. Second, client measures of history of mental health issues and being tested for HIV were likely to underreport prevalence. This issue was mitigated by using auxiliary variables, such as use of psychiatric medication, hospitalization, and sexual risk behaviors. Another limitation was social desirability associated with supervisors reporting on program measures and using one supervisor per program. Informed by large organizational studies (D'Aunno, 2006; Knudsen et al., 2006; Roman et al., 2011), this study's single key informant model with cross-validation checks allowed collection of system data from a larger number of programs. Although not optimal, we attempted to reduce response bias by completing validity checks (using funding data, counselor reports, and printed materials at program sites) with 91% of the sample during site visits. Finally, analysis of the data only allowed findings about service delivery and client outcomes to be generalized to the sampling frame: publicly funded SAT programs serving communities with a population of 40% or more Latino and/or African American

residents, or approximately 7.7 million residents in L.A. County, California. However, our conceptual framework can inform similar studies in other large, urban treatment systems serving low-income and minority clients.

4.2. Conclusions and implications

Substance abuse treatment systems serving minority communities are being challenged to adapt to a new health care environment that demands greater accountability, increased efficiency in service delivery, and reduced variation in care for minority populations (National Council for Community Behavioral Healthcare, 2011). This study provided preliminary evidence that financially and culturally responsive practices in SAT programs can increase access and retention in one of the largest and most diverse community-based treatment systems in the United States. It is clear that the Affordable Care Act's intended purpose to expand public insurance coverage for low-income individuals may result in faster access to care and longer exposure to treatment if clients and providers enroll in the Medi-Cal system. Although more than 80% of SAT providers accepted Medi-Cal payments in 2010–2011, ACA legislation will require providers to upgrade their electronic billing capacity to reduce access-related barriers to community-based care for low-income and newly eligible Medi-Cal clients.

The SAT system is poised to develop a comprehensive recovery approach that includes individualized public insurance billing capabilities to respond to the surge of newly eligible Medi-Cal clients in need of SAT treatment, as well as a culturally responsive and integrated approach to addiction recovery. As efforts to integrate primary and behavioral health care using a community-based, risk-reduction approach are undertaken (National Council for Community Behavioral Healthcare, 2011), the SAT system should develop stronger ties with minority communities to increase population health and health equity among racial and ethnic minority clients. Overall, these findings have significant implications for research and practice that seek to maximize public funds to improve standards of care for vulnerable populations.

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Conflict of interest

The author declares that he has no conflicts of interest.

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